WHAT IS CLAIMED IS:

1. An optical pickup apparatus reproducing a recording information of an optical disc or recording the information comprising:

an optical unit having a light source radiating a laser beam and an optical detector detecting a reflected light from the optical disc;

a collimator lens converting the radiated light of said light source into a fine divergent pencil of rays; and

an objective lens,

wherein said collimator lens forms a wavefront shape forming a fine divergent light and a wavefront shape correcting a coma aberration, and the wavefront shape correcting said coma aberration is formed in a wavefront shape correcting more coma aberration in correspondence to an increase of radius of said collimator lens.

2. An optical pickup apparatus as claimed in claim 1, wherein a ratio of sine amount (SIN θ2/SIN θ1) between a sine amount (SIN θ1) of the radiated light from said light source with respect to an optical axis and a sine amount (SIN θ2) of the light after radiating through said collimator lens with respect to the optical axis increases substantially in proportion to a square of said radius in correspondence to an increase of radius from a center of said collimator lens.

3. An optical pickup apparatus reproducing a

recording information of an optical disc or recording the information comprising:

a first optical unit having a first light source radiating a laser beam having a first wavelength and a first detector detecting a reflected light from the optical disc;

a second optical unit having a second light source radiating a laser beam having a second wavelength longer than said first wavelength and a second detector detecting a reflected light from the optical disc;

a light separating means for introducing the laser beam having said first wavelength and the laser beam having said second wavelength to the substantially same optical axis;

an objective lens functioning so as to form a smaller spot than the laser beam having said second wavelength with respect to the laser beam having said first wavelength;

a first collimator lens converting the radiated light of said first light source into a substantially parallel beam; and

a second collimator lens converting the radiated light of said second light source into fine divergent pencil of rays,

wherein said second collimator lens forms a wavefront shape forming a fine divergent light and a wavefront shape correcting a coma aberration, and the

wavefront shape correcting said coma aberration is formed in a wavefront shape correcting more coma aberration in correspondence to an increase of radius of said second collimator lens.

4. An optical pickup apparatus as claimed in claim 3, wherein a ratio of sine amount (SIN θ2/SIN θ1) between a sine amount (SIN θ1) of the radiated light from said second light source with respect to an optical axis and a sine amount (SIN θ2) of the light after radiating through said second collimator lens with respect to the optical axis increases substantially in proportion to a square of said radius in correspondence to an increase of radius from a center of said second collimator lens.

5. An optical pickup apparatus as claimed in claim 3, wherein with respect to said second collimator lens, a ratio of a radius of curvature (R2/R1) corresponding to a ratio between a radius of curvature R1 of the incident surface and a radius of curvature R2 of the radiating surface is within a range between 0.5 and 0.8.

6. An optical pickup apparatus as claimed in claim 4, wherein with respect to said second collimator lens, a ratio of a radius of curvature (R2/R1) corresponding to a ratio between a radius of curvature R1 of the incident surface and a radius of curvature R2 of the radiating surface is within a range between 0.5 and 0.8.

7. An optical pickup apparatus reproducing a recording information of an optical disc or recording the information comprising:

a first optical unit having a first light source radiating a laser beam having a first wavelength and a first detector detecting a reflected light from the optical disc;

a second optical unit having a second light source radiating a laser beam having a second wavelength longer than said first wavelength and a second detector detecting a reflected light from the optical disc;

a light separating means for introducing the laser beam having said first wavelength and the laser beam having said second wavelength to the substantially same optical axis;

an objective lens functioning so as to form a smaller spot than the laser beam having said second wavelength with respect to the laser beam having said first wavelength;

a first collimator lens converting the radiated light of said first light source into a substantially parallel beam; and

a second collimator lens converting the radiated light of said second light source into fine divergent pencil of rays,

wherein the elements are arranged so that the radiated light of said second light source forms an

optical path reaching said objective lens through said second collimator lens and said light separating means, and

said second collimator lens forms a wavefront shape forming a fine divergent light and a wavefront shape correcting a coma aberration, and the wavefront shape correcting said coma aberration is formed in a wavefront shape correcting more coma aberration in correspondence to an increase of radius of said second collimator lens.

8. An optical pickup apparatus as claimed in claim 7, wherein a ratio of sine amount (SIN θ2/SIN θ1) between a sine amount (SIN θ1) of the radiated light from said second light source with respect to an optical axis and a sine amount (SIN θ2) of the light after radiating through said second collimator lens with respect to the optical axis increases substantially in proportion to a square of said radius in correspondence to an increase of radius from a center of said second collimator lens.

9. An optical pickup apparatus as claimed in claim 7, wherein with respect to said second collimator lens, a ratio of a radius of curvature (R2/R1) corresponding to a ratio between a radius of curvature R1 of the incident surface and a radius of curvature R2 of the radiating surface is within a range between 0.5 and 0.8.

10. An optical pickup apparatus as claimed in

claim 8, wherein with respect to said second collimator lens, a ratio of a radius of curvature (R2/R1) corresponding to a ratio between a radius of curvature R1 of the incident surface and a radius of curvature R2 of the radiating surface is within a range between 0.5 and 0.8.

11. An optical pickup apparatus reproducing a recording information of an optical disc or recording the information comprising:

a first optical unit having a first light source radiating a laser beam having a first wavelength and a first detector detecting a reflected light from the optical disc;

a second optical unit having a second light source radiating a laser beam having a second wavelength longer than said first wavelength and a second detector detecting a reflected light from the optical disc;

a light separating means for introducing the laser beam having said first wavelength and the laser beam having said second wavelength to the substantially same optical axis;

an objective lens functioning so as to form a smaller spot than the laser beam having said second wavelength with respect to the laser beam having said first wavelength;

a first collimator lens converting the radiated light of said first light source into a

substantially parallel beam; and

a second collimator lens converting the radiated light of said second light source into fine divergent pencil of rays,

wherein the elements are arranged so that the radiated light of said second light source forms an optical path reaching said objective lens through said second collimator lens, said light separating means and said first collimator lens, and

said second collimator lens forms a wavefront shape forming a fine divergent light and a wavefront shape correcting a coma aberration, and the wavefront shape correcting said coma aberration is formed in a wavefront shape correcting more coma aberration in correspondence to an increase of radius of said second collimator lens.

12. An optical pickup apparatus as claimed in claim 11, wherein a ratio of sine amount (SIN θ3/SIN θ1) between a sine amount (SIN θ1) of the radiated light from said second light source with respect to an optical axis and a sine amount (SIN θ3) of the radiated light from said second light source after radiating through said first collimator lens with respect to the optical axis increases substantially in proportion to a square of said radius in correspondence to an increase of radius from a center of said second collimator lens.

13. An optical disc apparatus characterized by using the optical pickup apparatus as claimed in claim

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14. An optical disc apparatus characterized by using the optical pickup apparatus as claimed in claim 3.

15. An optical disc apparatus characterized by using the optical pickup apparatus as claimed in claim 7.

16. An optical disc apparatus characterized by using the optical pickup apparatus as claimed in claim 11.